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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/649,347	08/27/2003	Steven R. Reznak	03072	4170
<div>7590 Martha Ann Finnegan, Esq. Cabot Corporation 157 Concord Road Billerica, MA 01821-7001</div>				
<div>04/17/2008</div>				
EXAMINER				
ALEXANDER, LYLE				
ART UNIT		PAPER NUMBER		
1797				
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Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary

Application No.

10/649,347

Applicant(s)

REZNEK ET AL.

Examiner

Lyle A. Alexander

Art Unit

1797

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 16 January 2008.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-29 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-29 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO/SG/US)
Paper No(s)/Mail Date 12/31/07.
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date _____.
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: _____

In view of the Appeal Brief filed on 16 January 2008, **PROSECUTION IS HEREBY REOPENED**. New rejections are set forth below. Upon updating the search, new and pertinent art has been found. The Office will vacate the 7/17/07 final rejection in favor of the below new grounds of rejection.

To avoid abandonment of the application, appellant must exercise one of the following two options:

(1) file a reply under 37 CFR 1.111 (if this Office action is non-final) or a reply under 37 CFR 1.113 (if this Office action is final); or,

(2) initiate a new appeal by filing a notice of appeal under 37 CFR 41.31 followed by an appeal brief under 37 CFR 41.37. The previously paid notice of appeal fee and appeal brief fee can be applied to the new appeal. If, however, the appeal fees set forth in 37 CFR 41.20 have been increased since they were previously paid, then appellant must pay the difference between the increased fees and the amount previously paid.

A Supervisory Patent Examiner (SPE) has approved of reopening prosecution by signing below:

/Jill Warden/
Supervisory Patent Examiner, Art Unit 1797

Claim Rejections - 35 USC § 112

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Claims 21-23 and 25-26 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

A search of the art reveals that "interfacial potential absorptometry", "interfacial potential vapor absorption" and "yield point" are methods that are not readily recognize in the art. Clarification could be achieved by providing corroborating evidence, such as journal articles, describing these methods.

Claim Rejections - 35 USC § 102

The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

Claims 1-8 and 28-29 are rejected under 35 U.S.C. 102(b) as being clearly anticipated by Okado et al. (USP 5,620,824) or Wideman et al. (USP 6,348,539).

Okado et al. teach in column 6 lines 1--24 a method of producing a toner comprising organic resin particles in range of 20—200 microns and 300-800 microns in the amount from 2%-20% by weight. The taught particles are **carbon black, metal oxides and silica** which have been read on the claimed "*carbonaceous*", "*carbon black*", "*metal oxide*" and "*fumed silica*" particles. Column 7 lines 3-5 teach the organic resin particles are within a certain volume resistivity range. The claimed "*morphological values*" have been read on the taught **particle size** and the claimed "*interfacial potential*

properties" on the taught **volume resistivity**. The specification starting in column 10 lines 22-55 as well as claims 14-15,40-41 and 65-66 teach various BET values of the metal oxides, which in light of paragraph[0029] of the original specification, has been properly read on the claimed combination of *"morphological values"* and *"interfacial potential properties"*. Okado et al. teach both water and DBP as solvent for analysis.

Wideman et al. teach a method of making a composition comprising carbon black, silica and metal oxide particles in specific size ranges. Torque and BET values monitored to determine the desired characteristics of the composition and have been read on the claimed combination of *"morphological values"* and *"interfacial potential properties"*.

Claims 1-5, 7-8 and 27-29 are rejected under 35 U.S.C. 102(e) as being clearly anticipated by Barthel et al. (USP 6,800,413).

Barthel et al. teach a method of preparing carbon black and silica at the specific BET - method surface area (DIN 66131 and 66132) where these characteristics are determined by gas adsorption or inverse gas chromatography. The taught "BET" has been read on the claimed combination of *"morphological values"* and *"interfacial potential properties"*.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

Claims 9-20 are rejected under 35 U.S.C. 103(a) as being unpatentable over Okado et al., Barthel et al. or Wideman et al.

See Okado et al., Barthel et al. and Wideman supra.

Okado et al., Barthel et al. and Wideman et al. are silent to the claimed ranges of the morphological values within about 10%, the interfacial potential property value within about 50% and adjusting the process variables to achieve the desired properties.

The court decided In re Boesch (205 USPQ 215) that optimization of a result effective variable is ordinarily within the skill of the art. A result effective variable is one

that has well known and predictable results. In a manufacturing process the selection of the acceptable range of product is a result effective variable having the well known and predictable result of providing a product within the manufacturing specification. Specifically, the morphological properties relate to the size of the particle. Okado et al. and Wideman et al. teach specific ranges of particulate size, volume resistivity and/or BET values. It is essential when selling a product for it to conform to the required size, resistivity or BET ranges. It would have been within the skill of the art to modify Okado et al. and only select/sell particles that are within a 10% size/morphological range and within 50% of the resistivity or BET range as optimization of a result effective variable. Also, it is result effective variable to adjust the appropriate input to adjust the desired process variable as optimization of a result effective variable. It would have been within the skill of the art to further modify Okado et al., Barthel et al. or Wideman et al. and adjust at least one process variable to achieve the desired result.

Claim 24 is rejected under 35 U.S.C. 103(a) as being unpatentable over Okado et al., Barthel et al. or Wideman et al.

See Okado et al., Barthel et al. and Wideman *supra*.

These reference are silent to the adjusting the process variable to achieve the desired characteristics of the particles and the specific testing by "wicking rate."

The court decided In re Boesch (205 USPQ 215) that optimization of a result effective variable is ordinarily within the skill of the art. A result effective variable is one that has well known and predictable results. In a manufacturing process the selection of the acceptable range of product is a result effective variable having the well known and

predictable result of providing a product within the manufacturing specification. It is essential when selling a product for it to conform to the required size, resistivity or BET ranges. Also, it is result effective variable to adjust the appropriate input to adjust the desired process variable as optimization of a result effective variable. It would have been within the skill of the art to further modify Okado et al., Barthel et al. or Wideman et al. and adjust at least one process variable to achieve the desired result.

Testing a particulate material by the speed or distance the particulate solution “wicks” is notoriously well known in the art (e.g. for example paper chromatography). Wicking tests are advantageous because they do not require sophisticated equipment and can be performed by the layperson.

It would have been within the skill of the art to modify Okado et al., Barthel et al. or Wideman et al. and use a well known method to test particulate, such as a wicking test, to gain the above advantages.

Response to Arguments

Applicant's arguments with respect to claims 1-29 have been considered but are moot in view of the new ground(s) of rejection.

Conclusion

Upon consulting the original specification, the Office has interpreted the claimed “maintaining” step as the steps taught on page 5 paragraph[0018].

The rejections over Reszler have been vacated because Reszler teaches “... maintaining at least one morphological value, such as particle size, but does not teach

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additionally maintaining "... at least one interfacial potential property..." as presently claimed.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Lyle A. Alexander whose telephone number is 571-272-1254. The examiner can normally be reached on Monday, Tuesday and Thursday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Jill Warden can be reached on 571-272-1267. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

Lyle A Alexander
Primary Examiner
Art Unit 1797

/Lyle A Alexander/
Primary Examiner, Art Unit 1797